

SEQUENCE LISTING



<110> Brieden, Walter
Naughton, Andrew
Robins, Karen
Shaw, Nicholas
Tinschert, Andreas
Zimmermann, Thomas

<120> METHOD OF PREPARING (S)-OR (R)
-3,3,3-TRIFLUORO-2-HYDROXY-2-METHYLPROPIONIC ACID

<130> 32213

<140> 09/214,679

<141> 1999-12-30

<160> 14

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 1442

<212> DNA

<213> Klebsiella oxytoca

<400> 1

cccgggaact	ccatgtggcc	gtgacccctg	tcgagcagga	tattgcatg	atccagcggg	60
ccgcacagcg	ctgtgaggta	atggataaag	gcctgggtgt	agaaacgctg	acccaacaac	120
agctctctga	tgatctttta	atgcgtcgct	atctgggtct	gtaactaaac	gctataaatt	180
acgtggagaa	taacatatga	aatgggttga	agaatccatt	atggccaaac	gcgggtgttg	240
tgccgggctg	aaaccggtaa	cgcacacac	gacggaagaa	atgcaaaaag	agtttcatta	300
caccattggc	ccttattcca	caccgcctct	gaccatcgaa	cccgggtgac	ggattattgt	360
cgacactcga	gatgcttttg	aagggtgcat	caattcgga	caggatattc	cgagccagtt	420
gctaaaaatg	ccctttctca	acccacaaaa	cggaccgcat	atgggtcaatg	gcgcggagaa	480
aggtgatgtg	ctcgtgtgtc	atatcgaatc	catgttgccc	cgcggcgctg	atccctacgg	540
catctgcgcc	atgattccgc	attttggcgg	actgaccggg	accgacctga	cggccatgct	600
caatgatccg	ctgccagaaa	aggtgcgcat	gattaaactc	gacagtgaag	aggtctactg	660
gagcaaacgc	catacgcttc	cctataaacc	ccatattggc	accttgagcg	tatcgccaga	720
aattgactca	atcaattcac	tgacgccaga	caatcacggc	gggaatatgg	atgtgccgga	780
tataggacca	gggagtatta	cctatctgcc	ggtacgtgcg	cctggaggcc	gcctgtttat	840
tggtgatgcc	catgcttgct	aggggtgatg	tgagatttgc	gggaccgcag	tagagtttgc	900
ctcaatcacc	accatcaaag	tcgatttgat	caagaactgg	cagctttcct	ggccacgaat	960
ggagaatgcc	gaaaaatatta	tgagtattgg	cagtgcacgt	ccgctggagg	atgcgacgcg	1020
aattgcatat	cgcgacttaa	tttactggct	ggtagaagac	tttggcttcg	aacaatggga	1080
tgctacatg	cttctgagtc	aatgcggcaa	agtgcggctg	ggcaacatgg	tcgaccccaa	1140
atacaccgtt	ggcgcgatgc	tgaacaaaaa	cctgttagtt	tagtaggaat	aactaacggg	1200
tgaacattac	ccggatgtag	atcggggtaa	tgtgtaagtt	caaacaatcg	ctatttttaa	1260
cagctaaagc	aggtgcatat	ggggccagat	acacccatca	atattggttt	actttactcc	1320
ttcagcggag	tgacggcgcc	acaagagttg	tcacaatggc	gcggagcaac	ccaggctatt	1380
gccgaaatta	atcaaaatgg	cggcatcaac	ggcagaccac	tcaatgcaat	tcatttggat	1440

<210> 2
 <211> 328
 <212> PRT
 <213> Klebsiella oxytoca

<400> 2

Met	Lys	Trp	Leu	Glu	Glu	Ser	Ile	Met	Ala	Lys	Arg	Gly	Val	Gly	Ala
1			5					10					15		
Gly	Arg	Lys	Pro	Val	Thr	His	His	Leu	Thr	Glu	Glu	Met	Gln	Lys	Glu
			20					25					30		
Phe	His	Tyr	Thr	Ile	Gly	Pro	Tyr	Ser	Thr	Pro	Val	Leu	Thr	Ile	Glu
		35					40					45			
Pro	Gly	Asp	Arg	Ile	Ile	Val	Asp	Thr	Arg	Asp	Ala	Phe	Glu	Gly	Ala
	50					55				60					
Ile	Asn	Ser	Glu	Gln	Asp	Ile	Pro	Ser	Gln	Leu	Leu	Lys	Met	Pro	Phe
65				70					75					80	
Leu	Asn	Pro	Gln	Asn	Gly	Pro	Ile	Met	Val	Asn	Gly	Ala	Glu	Lys	Gly
			85					90						95	
Asp	Val	Leu	Ala	Val	Tyr	Ile	Glu	Ser	Met	Leu	Pro	Arg	Gly	Val	Asp
			100					105					110		
Pro	Tyr	Gly	Ile	Cys	Ala	Met	Ile	Pro	His	Phe	Gly	Gly	Leu	Thr	Gly
		115					120					125			
Thr	Asp	Leu	Thr	Ala	Met	Leu	Asn	Asp	Pro	Leu	Pro	Glu	Lys	Val	Arg
	130					135					140				
Met	Ile	Lys	Leu	Asp	Ser	Glu	Lys	Val	Tyr	Trp	Ser	Lys	Arg	His	Thr
145				150					155					160	
Leu	Pro	Tyr	Lys	Pro	His	Ile	Gly	Thr	Leu	Ser	Val	Ser	Pro	Glu	Ile
			165					170						175	
Asp	Ser	Ile	Asn	Ser	Leu	Thr	Pro	Asp	Asn	His	Gly	Gly	Asn	Met	Asp
		180						185					190		
Val	Pro	Asp	Ile	Gly	Pro	Gly	Ser	Ile	Thr	Tyr	Pro	Leu	Val	Arg	Ala
		195					200					205			
Pro	Gly	Gly	Arg	Leu	Phe	Ile	Gly	Asp	Ala	His	Ala	Cys	Gln	Gly	Asp
	210					215					220				
Gly	Glu	Ile	Cys	Gly	Thr	Ala	Val	Glu	Phe	Ala	Ser	Ile	Thr	Thr	Ile
225				230					235					240	
Lys	Val	Asp	Leu	Ile	Lys	Asn	Trp	Gln	Leu	Ser	Trp	Pro	Arg	Met	Glu
			245					250						255	
Asn	Ala	Glu	Asn	Ile	Met	Ser	Ile	Gly	Ser	Ala	Arg	Pro	Leu	Glu	Asp
		260						265					270		
Ala	Thr	Arg	Ile	Ala	Tyr	Arg	Asp	Leu	Ile	Tyr	Trp	Leu	Val	Glu	Asp
		275					280					285			
Phe	Gly	Phe	Glu	Gln	Trp	Asp	Ala	Tyr	Met	Leu	Leu	Ser	Gln	Cys	Gly
	290					295				300					
Lys	Val	Arg	Leu	Gly	Asn	Met	Val	Asp	Pro	Lys	Tyr	Thr	Val	Gly	Ala
305				310					315					320	
Met	Leu	Asn	Lys	Asn	Leu	Leu	Val								
			325												

<210> 3
 <211> 20

<212> PRT

<213> Klebsiella oxytoca

<400> 3

Met Lys Trp Leu Glu Glu Ser Ile Met Ala Lys Arg Gly Val Gly Ala

1

5

10

15

Ser Arg Lys Pro

20

<210> 4

<211> 5

<212> PRT

<213> Klebsiella oxytoca

<400> 4

Val Tyr Trp Ser Lys

1

5

<210> 5

<211> 13

<212> PRT

<213> Klebsiella oxytoca

<400> 5

Lys Pro Val Thr His His Leu Thr Glu Glu Met Gln Lys

1

5

10

<210> 6

<211> 9

<212> PRT

<213> Klebsiella oxytoca

<400> 6

Tyr Thr Val Gly Ala Met Leu Asn Lys

1

5

<210> 7

<211> 14

<212> PRT

<213> Klebsiella oxytoca

<400> 7

Met Glu Asn Ala Glu Asn Ile Met Ser Ile Gly Ser Ala Arg

1

5

10

<210> 8

<211> 9

<212> PRT

<213> Klebsiella oxytoca

<400> 8

Trp Leu Glu Glu Ser Ile Met Ala Lys

1

5

<210> 9
<211> 18
<212> PRT
<213> Klebsiella oxytoca

<400> 9
Met Pro Phe Leu Asn Pro Gln Asn Gly Pro Ile Met Val Asn Gly Ala
1 5 10 15
Glu Lys

<210> 10
<211> 19
<212> PRT
<213> Klebsiella oxytoca

<400> 10
Asp Ala Phe Glu Gly Ala Ile Asn Ser Glu Gln Asp Ile Pro Ser Gln
1 5 10 15
Leu Leu Lys

<210> 11
<211> 21
<212> PRT
<213> Klebsiella oxytoca

<400> 11
Glu Phe His Tyr Thr Ile Gly Pro Tyr Ser Thr Pro Val Leu Thr Ile
1 5 10 15
Glu Pro Gly Asp Arg
20

<210> 12
<211> 23
<212> PRT
<213> Klebsiella oxytoca

<400> 12
Leu Phe Ile Gly Asp Ala His Ala Glu Gln Gly Asp Gly Glu Ile Glu
1 5 10 15
Gly Thr Ala Val Glu Phe Ala
20

<210> 13
<211> 14
<212> PRT
<213> Klebsiella oxytoca

<400> 13
Gly Asp Val Leu Ala Val Tyr Ile Glu Ser Met Leu Pro Arg
1 5 10

<210> 14
<211> 33
<212> PRT
<213> Klebsiella oxytoca

<400> 14
Gly Val Asp Pro Tyr Gly Ile Glu Ala Met Ile Pro His Phe Gly Gly
1 5 10 15
Leu Thr Gly Thr Asp Leu Thr Ala Met Leu Asn Asp Gln Leu Gln Pro
20 25 30
Lys